MILE ◢◣ HIGH

ATARI
MAGAZINE

SEE THE NEW HORIZON COMPUTERS STORE
LOCATED AT 695 S. COLORADO BLVD.

NOVEMBER 1987

The Atari Club of Denver meeting is held on the first Tuesday of the month at the Aurora Public Library, located at 14949 E. Alameda at 7:00 p.m.

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The MILE HIGH ATARI MAGAZINE is the official newsletter of STARFLEET ATARI USER GROUP and is published monthly in cooperation with the ATARI CLUB OF DENVER. Original material in the MILE HIGH ATARI MAGAZINE may be reprinted, provided that MILE HIGH ATARI MAGAZINE and the author, if known, are given. Material from other clubs may not be reprinted without their permission.

S T I G

The ST INTEREST GROUP meets at the Hampden Library at 9755 E. Girard Ave. at 7:00 p.m. on the third Tuesday of the month. Contact Ed Fason for more information at 371-6614.

ELECTIONS!!!

Remember to be thinking about the club elections coming up in December. Many of the officers positions are becoming available, and the best thing about that is, there is no experience necessary. Nominations will be placed at the November meetings, and elections will be held at the December club meetings. So if you want to change the course of human history, or just get some no-threat experience in political process, run for office in the next Atari users group meeting, held because of Aurora election night on the SECOND Tuesday in November, which is the 10th at 7:00 p.m. at the Aurora public library on Alameda.

Tom Iowa

The Officers/Directors meeting is held on the Monday preceding each regular meeting at Denny's Restaurant, 3600 Fox St. (north end of 23rd St. viaduct) at 7:00 p.m.

The STARFLEET ATARI USER GROUP meeting is held on the second Friday of the month at the Pomona High School, located at 8101 Pomona Drive, just west of 82nd and Wadsworth at 7:00 p.m.

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|############|
| ATARI BBS  |
|  SYSTEMS   |
|  AREA CODE |
|   (303)    |
|  UPDATED:  |
|  10/15/87  |
|###################################|
|      LOCAL      SYSTEMS           |
|L=LIMITED *=24 Hours 300/1200 Baud!|
|###################################|
|    |                              |
|*12|Skyline       |457-0320|ST&XE  |
|*12|Zap           |367-4103|ST&XE  |
|*12|RSS Express   |978-0298|XE     |
|*12|Mycroft       |777-8898|Horizon|
|*12|The Vault     |796-0539|ST.    |
|*12|Hozerville    |933-0906|XE     |
|*12|Mile High     |431-1404|ST&XE  |
|*12|Toadscape     |741-5863|For STs|
|*12|Unknown BBS   |988-8155|Ascii  |
|*12|Grotto TBBS   |694-9050|Ascii  |
|* 3|CARL Library  |830-1165|Ascii  |
|*12|CARL Library  |830-1546|Ascii  |
|*12|CARL Library  |830-1547|Ascii  |
|*12|Bud's BBS     |761-6807|XE     |
|*12|Lybian Embasy |688-1127|XE     |
|L ?|Trekker World |745-9530|       |
|  ?|Club House    |756-9134|       |
|*12|Running Board |252-4051|XE     |
|*12|Charlotte's   |364-0053|XE     |
|  ?|No Return     |388-5437|Ascii  |
|*12|White Runes   |972-8566|ST     |
|  ?|Y-108         |972-4181|Ascii  |
|  ?|Discovery     |388-5437|Ascii  |
|  ?|Box's Cabin   |424-9185|Ascii  |
|L12|Computer Room |799-9733|Ascii  |
|*12|Predacon      |988-6886|XE     |
|*12|Computer Rep. |939-8174|SELL   |
|* 3|Crystal Pyra. |922-4006|XE     |
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Antic announces FLASH 1.5, the successor to the immensely popular version 1.0 of the FLASH terminal program...

FLASH 1.5 features include:

Improved editor:
 Automatic word-wrap at user-selectable line width.
 Paragraph or block reformatting.
 Search and replace function.
 Auto-repeat scroll bar.
 Faster operation.

Enhanced ANSI [VT100] terminal emulation:
 Graphic [ine-drawing] character set.
 True underlining of text.
 Full documentation of supported escape sequences.

Additional file transfer protocols:
 CompuServe 'B' protocol for faster file transfers on CompuServe.
 Ymodem batch file transfer - automatically recognised!

New command language features:
 Conditional execution.
 Branching to user-defined labels.
 26 user variables.
 Input from files, dialog boxes, or alerts allow customised DO
  files.
 Enhanced WAIT command with optional timeout allows improved error
  detection and correction.
 EXECUTE command lets you run TOS and GEM programs from within
  FLASH [e.g. ARC.TTP, command shells, or GEM applications
  like Arcshell and even 1st Word].
 Log text to capture buffer.
 FREE command free's memory that the capture buffer has taken.

'History'
 Command line history allows you to scroll back through 64 of your
previous command lines and typeahead lines, edit and resend them.

 FLASH 1.5 is available as a free update to current FLASH owners.
Just send your master FLASH disk back to us, with $5 to cover shipping
and handling, and we'll send your copy of 1.5 out to you the same day
we get your disk.

 FLASH update
 Antic Software
 544 Second St.
 S.F., CA 94107

RAISING PHONE FEES FOR COMPUTER NETWORK USERS
(Combined Reports)
Oct. 5, 1987
 FCC Chairman Dennis R. Patrick said Friday that a proposal to raise telephone fees for computer network

users is based on fairness. But users say the plan would crush the fledgling industry. In testimony before the House Energy and Commerce Telecommunications subcommittee, Patrick said the proposal would charge computer users the same fees now paid by long-distance callers.

 Home computer users, say the added costs would force many of them off the computer networks they use to communicate with electronic databases across the country -- exchanging information on electronic bulletin boards, checking stock market reports, making airline reservations, and exchanging public domain computer programs.

 Witnesses also told the panel that the higher charges, proposed by the Federal Communications Commission, would drive thousands of computer users -- from hobbyists to doctors -- off their electronic networks and slow the growing use of the technology 'This would severely retard the coming of the information age,' said Allan Conner, president of DunsNet, a company of the Dun & Bradstreet Corp. The implications of the proposal extend far beyond home computer users.

 For example, Conner said, imposing access charges would substantially drive up the cost of automatic authorization of credit cards -- raising the cost of a single verification from the current 12 cents to 19 cents. This cost, he said, ultimately would be borne by the consumer. "Consumers would lose, retailers would lose, the credit card people would lose. The only people who would gain are people who use fraudulent credit cards," Conner said. The higher charges will reduce the use of electronic information services, slowing or even crippling an infant industry, which in turn will reduce revenues from the fees, he said.

 "In essence, no one gains and many people lose if this goes forward," he told the House Energy and Commerce telecommunications subcommittee. Schools would be forced to cut back their use of electronic data bases for research, said John Stuckey, director of academic computing at Northeastern University. Cutbacks also would be forced at hospitals, where doctors rely on computerized medical data bases for quick reference, said Jacquelline Bastille, director of the medical library at Massachusetts General Hospital. "This is a vital service," she said. "Access to biomedical information is needed quickly. Same-day retrieval is critical to quality patient care." Higher fees also would drive many of the roughly 750,000 home computer users off the electronic networks they use to read stock reports and news stories, call up airline schedules, and even line up blind dates, said Richard tenEyck of the Boston Computer Society, the largest computer group in the country with 25,000 members nationwide.

 "This is a genuine threat to our society," said Rep. Edward J. Markey, D-Mass., subcommittee chairman.

LONE WITNESS DEFENDS PROPOSAL
 FCC Chairman Dennis R. Patrick, the lone witness defending the proposal, said government regulators see the issue as one of fairness -- everyone who uses the local phone network should pay the costs of maintaining it. "If we exempt one category of users, that means another category of users will have to pay more," he said. "It's not clear to me it is appropriate in an equity sense if it

increases the amount borne by low-income voice users."
"The commission recognizes the valuable role enhanced (information) services play in this nation's information age," Patrick said. But the FCC must also weigh the effects of the proposal on ordinary telephone subscribers, who already are paying similar fees, he said.

Patrick estimated the access charges on information service providers would reduce long-distance rates by about 1 percent. "We want to see the (computer) networks evolve in response to the economics of the marketplace ... not in response to subsidies," he said. Rep. Edward J. Markey, D-Mass., subcommittee chairman, noted the strong opposition to the proposal from computer users who have sent him more than 4,000 letters.

"Our highest priority must be that these services are available and the information flows freely," he said. With imposition of the proposed access charges, "information services will become the exclusive prerogative of the rich."

The FCC, when it adopted the access charge system in 1982, exempted information service providers from the fees because of the fear that the new industry would not withstand the sudden increase in costs. Now, the FCC believes, it may be time to lift the exemption, but the agency has found scant support for that conclusion. Even some of the local Bell operating companies, which receive the access charges, have reacted with only lukewarm support.

SHARE THE LINE

Users also cite that phone companies combine such electronic calls so that several of them may be transmitted over the same telephone line. Since standard (voice) calls cannot be combined this way, users claim that several users would be charged for the same call.

The proposal would add about $4.50 an hour to the cost of hooking up to information services. For some of the lower-priced services, the additional cost would more than double the hourly rates.

Floyd H. Trogdon, vice president of Telenet Communications Corp., a computer network that connects computer users with information data bases, said the access charges would raise some of its off-peak rates by 500 percent. He estimated that the access charges from the computer industry would lower long-distance rates by less than one half of one percent.

Computer users said electronic information services are already paying their share of phone network costs in a flat-rate surcharge per customer. Markey took the panel on the road to Boston, a high-tech center that has generated much of the opposition to the proposal.

"This (industry) will essentially disappear if the FCC access charges goes through," said Richard tenEyck, telecommunications director of the Boston Computer Society, whose 25,000 members make it the largest computer group in the country.

The loss, he said in a telephone interview earlier this week, will cut off these services to many of the approximately 750,000 home computer users, some of whom are handicapped or elderly and use computers as a gateway to the outside world.

Using one of the more than 15,000 electronic billboards on computer networks throughout the country, a computer user with a question about how to handle a tax matter, for example, can dial into a network, pose the question in a message and post it on such a billboard. Readers scanning the different messages can answer the question, posting their message in the same way. "That kind of interaction happens on the order of every five seconds throughout the United States," tenEyck said.

He added, "One of the ways to make the technology more affordable is to increase the size of the market. Reducing the market is a step backward."

IN YOUR DRIVE #8

has already been typed at the top of this page, so it's too late to use this paper for something useful. It's been too long since the last installment, for which I (again) apologize. Hopefully, things are going to stay semi-calm for awhile, permitting me time to actually test-drive some of this software.

For those who've complained that there's nothing really new for the Atari 8-bits, I refer them to ACE OF ACES ($39.95, Accolade), based loosely on Nova Games' flipbook games. The setting is in the World War II skies, you're flying an RAF Mosquito fighter bomber, and your mission may be anything from stopping a Nazi bomber and attending fighters to bombing U-boats. All by yourself, mind you; your commander doesn't send you out with any other flyers. Obviously the RAF wants you to die.

You die (and fail) quite frequently with this game. The opponents aren't easily whipped -- and there are many of them. Worse, you can burn up all your fuel quickly with many fancy maneuvers or fast flying. Flying too low has wiped me out numerous times. There are, frankly, almost as many ways to die as in Frogger.

You'll have fun along the way however. You can switch views (not always instantly!) from front to sides, to navigator's map, to bombadier's compartment. I would REALLY have liked a tailgunner's spot (So MANY fighters get right on my tail and I can't shake 'em!) but you can't have everything.

Warning: the damned program is copy-protected -- which means that anyone with half a brain can pirate it, but registered owners must sit through a disk drive-grinding, slow boot-up and LOTS of title screens the first time. You can later by-pass the title screens, but they _do_ look nice the first time. If the slowness and unprofessionalism of copy-protection annoys you, drop this.

If you can tolerate copy-protection, then you'll be well-rewarded. The play-action is realistic and devastating, the movement seems flawless, and the graphics are excellent (though not as excellent as the Commodore screen; are short-cutting programmers at fault here?). A fun, if frustrating game.

The CHESSMASTER 2000 (Software Toolworks, $39.95) is a different kind of fun altogether, and one which must be judged by an entirely different set of standards. The things I look for in a chess program are Ease of Use,

Clear Graphics (I want to be able to tell a rook from a king!), Challenge, Tutorial Ability, and Superb Documentation (So I'm picky). Point by point:

Ease of use - Chessmaster 2000 is easier to use _without_ the joystick option, though a mouse works well. Typing the starting and destination locations proves faster than joystick pointing. The options menu is simple to figure out -- I was playing against the Chessmaster before I ever opened the manual.

Clear graphics - The ST version is sharper, but the 8-bit is _very_ close behind it. In either 2-D version, there is no difficulty in recognizing the pieces and the locations. The 3-D version (an option) causes some confusion. It offers a view from the front angle of the board in forced perspective. The pieces are recognizable enough, but their locations are difficult to estimate, even on the super-sharp ST monitor. Through no fault of program, most chess players are used to thinking (and seeing the board) in 2-D. This makes the 3-D option a nice demo, but clumsy for actual play.

Challenge - If you're looking for the _toughest_ chess player, Chessmaster's probably not it. It was beaten by Sargon III 4 out of 5 times. Unless you're in World Class league, you'll never notice. By challenge, we refer to a game which is tough but "winnable." Chessmaster is winnable, from its lowest to its highest levels. A beginner won't be lost, and no one will outgrow Chessmaster. There are 20 levels of play, and an informal ("coffeehouse") option for any level. Finally, one can play head to head with a human opponent - an option which is useful for introducing a novice to chess.

(Which brings us to...)

Tutorial ability - The program aids a newcomer by (optionally) showing possible moves each piece _can_ make. It sounds (unless you tell it not to) when a check or checkmate is made. It sounds and refuses to let you make illegal moves. (On a side note, the ST version offers voice speech from time to time.) If you wish, it can offer hints (not always any good) and/or offer to show you a probable route to checkmate. A library of historically-significant games is included, any of which can be run as a demonstration of chess at its cleverest. Even experts will improve their game by studying the games on the disk. The documentation offers simple introduction to chess rules -- which leads us to....

Superb documentation - Simple, yet complete—this manual is _elegant_. Within a few pages, completely illustrated, one is taught the rules of chess -- right down to castling and en passant capturing, a feature most programs don't anticipate (but Chessmaster does). The manual goes from the basics of the game and program to a history of chess. From there, it gives advice, background to the library of games, editorial opinions, chess puzzles, and a good bibliography. A separate card is included with the most-used commands and keystrokes in alphabetical order. the one thing the manual ,lacks is credit for the Chessmaster designer(s?) and programmer(s?) and a credit for the documentation

authors. As the manual is one of the best features of Chessmaster 2000 (I'd argue that the manual alone is worth $20 of the price tag!), this is a significant failure of Software Toolworks. The Chessmaster is such a significant development in chess software that this oversight looks damning, as if the company is hiding its artists in the manner which Atari once did. And we all remember what happened to that Atari, don't we?

Infocom has just released THE LURKING HORROR. It's an adventure based on H. P. Lovecraft's stories (uncredited, and the names of places have been changed to protect the copyrights), it's by Dave Lebling, it's produced by Infocom, and that's all you should need to know. Buy it. $34.95 (8 bit) or $39.95 (16 bit).

For the 16 bit Atari, 1ST WORD is still being sold by Atari. About $30 if memory serves me well. The differences between this one and the free 1st Word given away with the 520 ST once upon a time -- well, the differences are miniscule. They consist of slightly slicker packaging and a manual on paper rather than on disk. Otherwise, it's a good word processor for the price, but slow and something of a pain. Limited too, with a printer interface that's somewhat annoying.

Almost as limited is HabaWriter -- but it's a better bargain all around. It's faster, for one thing, seems to use less memory, and comes with HabaSpell spellchecker and MailMerge. The display is comfortable, very much a What You See is What You Get look, and the mouse interface is top-notch. I don't want to use a mouse while composing (It slows me down to lift my fingers from the keyboard), but I certainly enjoy it when editing! Haba allows me to either use or not use the mouse, without _requiring_ it. Darned decent of 'em.

The manual, while sketchy, is adequate for most purposes, though a decent index would be nice. The printer drivers included are for an Epson or a Diablo. If you don't have one of those, there are less than helpful instructions on how to build a printer driver. Get a knowledgable person to help; the printer driver I made for my Gemini 10x prints garbage. I should mention that the Epson driver works pretty well with it. With its combination of programs and relatively low price ($40), HabaWriter/Spell/MailMerge makes an excellent introductory word processor. Know what you're getting --excellent help screens, nice display, sharp letters, and ease of use-- and you won't be disappointed.

PRINTMASTER ($59.95, Unison World) should need no real introduction to ST users -- or to 8 bit users, for that matter. It's basically Print Shop, but faster, better, and more complete. Some options which Print Shop permits only if you buy the Print Shop Companion are all on one disk with PrintMaster. The scuttlebutt is that Broderbund is trying to keep Unison World in court because PM looks too much like Print Shop. while PM _does_ look like PS -- the menus are the same the commands are the same, even the icons are frequently the same -- PM does everything so much better and simpler AND sharper that Broderbund have only themselves to blame for not introducing Print Shop to

the 16 bit world long ago. PM makes such a strong showing that it'd wipe out Print Shop's supporters among 8 bit owners if PM was ever translated to the XE line. Cards, signs, calendars, memos, stationary, banners -- everything the Print Shop could do and more. Perhaps comparing them proves that Broderbund is right about their "proprietary design" of the menus, etc. However, one would like to imagine a world where improvements of existing designs are rewarded. If this is such a world, PrintMaster will thrive.

THE STATUS LINE was once called the New Zork Times. Legal harassment from the New YORK Times brought about a name change to this more dignified title. Fortunately, dignity is abandoned immediately after the title, for this is the newsletter/fanzine which Infocom uses to promote their games and cause insane giggles amongst the players & purchasers of Infocom adventures. It's free to registered owner's of Infocom products, and is full of in jokes, puns, contests, quizzes, puzzles, lies, rumors, and innuendos about the workers and designers (which would indicate that designers don't work) at Infocom. For instance, this issue highlights a contest asking Why editor Stu Kirsch has the nickname of "Stella," and a challenge that the Status Line "will soon be more enjoyable than the games" of Infocom, and a report on Upper Sandusky (where Leather Goddesses of Phobos begins). Don't take it seriously, but DO take it!

SIERRA NEWSLETTER is a new zine in search of a title. It's published by Sierra On-Line for the same reasons that Infocom publishes Status Line: to plug Sierra products and awaken a hunger for more. Not as tongue-in-cheek as Status Line, it offers a more businesslike atmosphere, with reports and opinions -- plus contests, etc. John Williams leads with an editorial suggesting more adult games for the future, though he fears poorly-made pornographic games (Custer's Revenge is being re-issued?? Yucck!) may undermine this development. Roberta Williams is interviewed again, and many businesslike articles show how strongly SO-L considers things like customer support. Along those lines, I'll mention that if there was ANY mention of the Atari 8-bit computer (even in their "catalog page"), I blinked and missed it. Even the Commodore, which they say they are phasing away from was listed as having various versions of SO-L games. Ah well, at least they admit that the ST exists. Mostly though, it appears that Sierra On-Line is an IBM and Apple company---but, except for John Harris in the past, they always were.

<Whew!> I can't believe that I wrote all the above in the space of one hour and seventeen minutes! Amazing what you can do when you've got Dave breathing down your neck. We'll try to shoehorn some time in next month (takes longer to test-drive the games than it does to write about 'em) for this again. Be good, or at least be adequate.

Jeep!

Chet

LANGUAGES FOR THE ATARI

by Bob Stafford
and
Tom Oughton

PILOT

This is part two of Languages for the Atari. In part one we explained why there is more than one language and how to decide when to use a language.

PILOT (Programmed Inquiry Learning Or Teaching) was written in 1960 by Dr. John Starkweather at the University of California Medical Center in San Francisco. He wrote PILOT to create easy computer aided instruction programs (CAI). These programs would ask a question, request an answer and then verify the correctness of the answer. These programs were mainly input and output of text strings. Although there is no offical standard, the most common commands are called Core PILOT. Unless indicated as belonging only to Atari PILOT, I will be describing Core PILOT. If, durring a description I state that something is not supported, no command exist to do that task. That task may be realized by use of "peeks" and "pokes".

There is only one version of PILOT available for the eight bit Atari. It has Core PILOT with the addition of graphics and sound. The graphics supports turtle graphics. Four voices are accessed with the sound command.

PILOT is an interpeted language, which while making it slow, makes it very interactive. The Atari version has a full screen editor. This editor is used in both immediate and programming modes. When in programming mode, all lines start with a line number. These numbers range from 0000 to 9999, this limits a program to 10000 lines maximum. Auto line numbering and renumbering are features of Atari PILOT.

Commands in PILOT do not have descriptive symbols. They consist of one to four letters followed by a colon (:). Examples of commands are, T: ; types the following onthe screen, A: ; accepts an input and (Atari only) PA: ; pauses the program. There is no one command like an IF to check conditions. Instead, each command can have a conditional check inserted into it, for example: "T(#A>90): TOP OF CLASS" would print "TOP OF CLASS" only when #A > 90.

For handling strings PILOT is one of the most powerful languages available for the Atari. The match command (M:) will find a match anywhere in an input string. The line "M: ATARI" would match both "ATARI" and "MY COMPUTER IS AN ATARI". While this can be done in other languages, only PILOT can do it with one command. Once a match command is executed, the type (T:) and jump (J:) commands can executed conditionally by adding a "Y" for match found or "N" for no match found. Another String matching function of pilot is the match string command (MS:). It takes an input and breaks the searched string into three parts. $LEFT is the part of the string before

the match, $MATCH is the found match and $RIGHT is the remainder of the string.

PILOT is so geared to string manipulation, that its arithmatic functions are designed almost as if an after-thought. Floating point numbers are not supported, Integers only are allowed. To do any calculation the compute (C:) command must be used. The simple arithmatic functions of addition, subtraction, multication, division, and modulo are the only math functions allowed. A "?" is used to generate a random integer number.

The Atari version of PILOT supports graphics modes 0 and 7 only. There is one turtle who can draw in 4 colors. Nosetcolor command is available to modify the turtle's colors. This turtle can be controlled with turtle graphics commands like in LOGO, or with X,Y commands like in Atari BASIC. The sound command is very limited when compared to other languages. It has four voices, but only allows 32 different notes for each voice.

Variable names have a very rigid format. PILOT supports four different types of variables. String names are a "$" followed by any combination of letters and numbers. PILOTs weakness in math is again apparent as it allows only 26 numeric variables. These are named by a single letter preceded by a "#". A "%" followed by a name is for system variables, %J0 is to access joystick 0. Pointer variables allow the "peeks" and "pokes" to access features not supported by PILOT. The name for a pointer is a "@" followed by an address to access a double word, or "@Baddress" to access a byte. While the names are rigid, type checking isa weak. This means a pointer can be added to a numeric variable.

Arcade games, word processers and database managers are all very poor uses of PILOT. It is too slow for all but the simplest real time control applications. The lack of arrays and data statements make processing of large amounts of data difficult.

PILOT is a very good language for any text input and output intensive applications. Some examples are, computer aided instruction and adventures. PILOT's small instruction set combined with it's turtle graphics make it a good first language for children to learn to interact with the computer.

Following is a listing of "ORANGES" written in PILOT. This is not a good example of uses for PILOT, but it does run.

```
10 R: ORANGES IN PILOT
20 R:BY TOM OUGHTON 7-9-87
30 U:*INITIALIZE
40 U:*SCREENSETUP
50 U:*BALLSTART
60 *MAIN
70 U(@B764<>255):*WAIT
80 C:#S=%J0
90 U(#S=#L):*LEFTONE
100 U(#S=#R):*RIGHTONE
110 GR:PENERASE;GOTO #X,#Y
112 C(#I=4):#I=0
115 C:#I=#I+1
120 C(#I<=3):#Y=#Y-1
130 GR:PENRED;GOTO #X,#Y
140 J(#Y=#D):*CATCHCHECK
150 J:*MAIN
200 *LEFTONE
210 C:#T=#P+1
220 GR:PENERASE;GOTO #T,#D
230 C:#P=#P-1
240 J(#P<-78):*LEFTEDGE
250 C:#T=#P-1
260 GR:PENYELLOW;GOTO #T,#D
270 E:
280 *LEFTEDGE
290 C:#P=78
300 GR:GOTO -79,#D;DRAWTO -76,#D
310 GR:PENYELLOW;GOTO 76,#D;DRAWTO 79,#D
320 E:
400 *RIGHTONE
410 C:#T=#P-1
420 GR:PENERASE;GOTO #T,#D
430 C:#P=#P+1
440 J(#P>78):*RIGHTEDGE
450 C:#T=#P+1
460 GR:PENYELLOW;GOTO #T,#D
470 E:
480 *RIGHTEDGE
490 C:#P=-78
500 GR:GOTO 79,#D;DRAWTO 76,#D
510 GR:PENYELLOW;GOTO -76,#D;DRAWTO -79,#D
520 E:
600 *BALLSTART
610 C:#X=?\159-79
620 C:#Y=47
630 E:
700 *CATCHCHECK
710 GR:PENERASE
720 C(#X>=#P):#T=#X-#P
730 C(#X<#P):#T=#P-#X
740 J(#T<2):*CATCH
750 C:#B=#B-1
760 C:@B53762=100
770 C:@B53763=8*16+10
780 PA:10
790 SO:0,0
800 J(#B=0):*GAMEOVER
810 J:*SCORE
820 *CATCH
830 C:#C=#C+1
840 GR:PENYELLOW
850 U:*TONE
860 *SCORE
870 GR:GOTO #X,#D
880 C:@B656=0
890 C:@B657=10
900 T:#C
910 C:@B656=1
920 C:@B657=10
930 T:#B
940 U:*BALLSTART
950 J:*MAIN
```

```
1000 *SCREENSETUP
1010 GR:CLEAR
1020 C:#A=@B561*256+@B560
1030 C:@B752=1
1040 *LOOP1
1050 J(@B#A=66):*MODIFYDL
1060 C:#A=#A+1
1070 J:*LOOP1
1080 *MODIFYDL
1090 C:@B#A=70
1100 C:#A=#A+3
1110 C:@B#A=6
1120 C:#A=#A+1
1130 C:@B#A=6
1140 C:#A=#A+1
1150 C:@B#A=6
1160 U:*STARTGAME
1170 E:
1200 *STARTGAME
1210 C:#B=3
1220 C:#C=0
1230 T:)
1240 C:@B656=1
1250 C:@B657=25
1260 T:PRESS fire
1270 C:@B656=0
1280 C:@B657=26
1290 T:oranges
1300 C:@B53760=250
1310 C:@B53761=10*16+10
1320 C:@B53762=252
1330 C:@B53763=10*16+10
1340 *LOOP2
1350 J(ZT8=1):*CONTINUE
1360 C(@B711=255):@B711=0
1370 C:@B711=@B711+1
1380 J:*LOOP2
1390 *CONTINUE
1395 SO:0,0
1400 C:#P=0
1410 T:)
1420 C:@B656=0
1430 C:@B657=2
1440 T:CATCHES 0
1450 C:@B656=1
1460 C:@B657=2
1470 T:baskets 3
1480 C:@B656=0
1490 C:@B657=30
1500 T:high #H
1510 E:
1600 *GAMEOVER
1610 C:@B656=1
1620 C:@B657=10
1630 T:#B
1640 C:#A=100
1650 *LOOP3
1660 C:@B53762=#A
1670 C:@B53763=10*16+10
1680 C:#A=#A+10
1690 PA:5
1700 J(#A<=200):*LOOP3
1710 C:@B53762=250
1720 C:@B53763=12*16+10
```

```
1730 PA:64
1740 SO:0,0
1750 C(#H<#C):#H=#C
1760 GR:CLEAR
1770 U:*STARTGAME
1780 U:*BALLSTART
1790 J:*MAIN
1800 *WAIT
1810 C:@B764=255
1820 *LOOP4
1830 J(@B764=255):*LOOP4
1840 C:@B764=255
1850 E:
1900 *INITIALIZE
1910 C:#L=4
1920 C:#R=8
1930 C:#D=-27
1940 C:#H=0
1950 C:#I=0
1960 E:
2000 *TONE
2010 C:@B53762=81
2020 C:@B53763=10*16+10
2030 PA:8
2040 SO:0,0
2050 E:
```

NEWS STATION
NEWS STATION COMPANION
PUBLISHING PRO
REVIEW BY STEVE FISHBEIN

An editorial in the June, 1987 issue of ANTIC urged readers to write to Springboard Software requesting release of the Newsroom page designer for Atari 8-bit computers. I have used Newsroom (on a well-known 8-bit computer that's inferior to the Atari) and I can tell you that Atarians have better software than Newsroom available right now!

Reeve Software is a small Atari software company in Illinois. Alan Reeve's News Station ($29.95, 48K disk) is more versatile and easier to use than any current version of Newsroom ($49.95, Apple, IBM, C-64). News Station was programmed specifically for the 8-bit Atari, so it takes good advantage of the Atari's powerful graphics tools.

Here are some of the ways in which Reeve's News Station leaves Springboard's Newsroom eating dust.

NEWS STATION	NEWSROOM
TEXT:	
Any Atari font	5 fonts
64 font sizes	2 font sizes
GRAPHICS:	
No preparation	3 steps needed
COMPATIBILITY:	
Print Shop icons	Clip-art disks
(3 sizes)	($30-$40 each)
Micro-Painter	
Micro Illustrator	
Direct drawings	

And now, the brand-new News Station Companion ($29.95, 48K disk) brings in four new features that give the base software considerably more power. The Companion creates headlines that go across the top of the entire page, matching Newsroom's "banner" mode. It compresses eight 52-sector News Station plate files into a single

page file that requires much less disk space. Long, multi-page text files can be accepted now, as well as unconverted KoalaPad graphics.

The $60 total cost of News Station and News Station Companion is $10 more than Newsroom. But News Station is a better value because the only way to get additional graphics into Newsroom is to buy clip-art disks at $30 to $40 each. In money-saving contrast, News Station can import graphics from all the most common Atari formats.

Also from Reeve Software is Publishing Pro ($39.95, 48K disk) is an "advanced version" of News Station that can produce a full page of text and graphics without using plates. But to accomplish this, it sacrifices some versatility and ease of use. Text fonts and sizes cannot be changed within a page, and you must figure the X,Y coordinates to position each element of the page.

News Station was given a short write-up in the July, 1987 ANTIC feature review of printer software (page 17). I felt that the reviewer missed much of the versatility of this program, even though he called News Station "an ideal tool for putting text into a picture" and admitted that the program "works fine for two-column printouts."

Simple page-design software like News Station and Newsroom get around the memory limits of a 48K or 64K computer by dividing a full page into eight equal "plates." Each plate uses a single computer screen which is saved as a separate file.

This method may not be "true desktop publishing" like Pagemaker, Ventura Publisher and Ready, Set, Go, or the Atari ST's Publishing Partner and Fleet Street Publisher. But it doesn't carry the hefty price tags ($120 all the way up to $900) of these laser-oriented programs either.

Eight-plate page-design software uses standard, inexpensive dot-matrix printers and is terrific at producing informal newsletters, flyers, signs and brochures -- are all most people really need for their personal desktop publishing.

TEXT

News Station and Newsroom both come with five built-in fonts. But News Station also lets you use any nine-sector Atari font -- in eight heights and eight widths.

A height-to-width ratio of 2 to 1 seems to provide the best-looking
characters, but there are times when variations might make a font more readable. The standard Atari font remains in memory along with one selected user font, which can be changed at any time. Once placed on the screen, characters remain in the chosen font.

An article might have a large headline, a slightly smaller subhead and normal-sized copy. Subheads can also be used throughout an article to emphasize sections of the copy.

Text can be entered onto the plate from an ASCII file on disk or by typing it in. News Station does not have word wrap, but because the program remains in type-over mode, changes can be made easily.

News Station text files must be broken down into plate size before being transferred. However, News Station Companion eliminates this restriction and lets you set pages in as many as four columns.

News Station accepts three types of graphics: Print Shop icons, Micro-Painter files and direct drawings, using a joystick, KoalaPad or Suncom's Animation Station as input devices.

Any number of Print Shop icons can be entered directly onto the plate and enlarged to double-size or triple-size. The ability to use Micro-Painter files opens the door to use of virtually any graphic by using The Rapid Graphics Converter (ANTIC, November 1985) to adapt other graphic files. A utility in News Station Companion also makes it possible to use Micro-Illustrator graphics directly. There are few commands in News Station and most are mnemonic. [CONTROL][G]raphics toggles with [CONTROL] [T]ext. [CONTROL] [A]tari and [CONTROL] [U]ser toggle the font in use, selected with [CONTROL] [F]ont.

Putting a graphic onscreen requires typing [CONTROL] [G] to put the program in graphics mode, typing [CONTROL] [D] to get a directory of graphics, putting the cursor at the upper left-hand corner of the location you want the picture and then selecting the picture from the directory which scrolls the bottom of the screen.

HINTS

If you don't own News Station Companion, you need to use indirect methods to print a banner headline across the top of the page. To do so, I counted characters. For plate 1, I counted back from the center, placed the letters in two different sizes and fonts, and then saved that plate. The next step was to do the right half, working outward from the center, but instead of clearing the first screen I matched characters so they would line up correctly, and I used the type-over mode to clear unwanted copy. X and Y coordinates are available, but I find it easier to match using a previous screen.

NEWS STATION COMPANION

News Station Companion is a collection of four utilities that make the original News Station even more powerful and versatile.

The Companion's Plate Manipulator utility makes it a lot simpler to create banner headlines across the top of the page. The banner can be created on a single plate, which can then be enlarged to cover the full top of the page. Or it can be centered, as is, on top of the page.

The Plate Manipulator takes the single plate and converts it into plates 1 and 2. If the centering option is selected additional material could be added to fill the extra white space.

The manipulator can also be used to expand two plates vertically, which permits placement of an extra-large graphic.

Another important Companion utility permits use of longer text files. The text file is loaded into the Companion utility and a page, broken down into eight News Station plates, is created, a routine that does take about 20 minutes.

The page can include 1, 2 or 3 columns of type -- 80, 39 or 26 characters wide. If the 26 or 39 column option is taken, I recommend loading the plates back into News Station and adding a vertical line to separate the columns. If the file is longer than a page the program allows conversion of pages by page number.

The basic News Station program accepts KoalaPad Files that have been transformed into Micro-Painter format. But only the top five-sixths of the picture can be used. But now a Companion utility allows direct entry of graphicd

from a KoalaPad (or Suncom Animation Station) file and also permits using either the top five-sixths or the bottom five-sixths, or even just a center section.

The fourth utility in the Companion is the Library. A News Station plate requires 52 sectors of disk storage and an entire page (eight plates) takes up 416 sectors (52 X 8). The Companion compresses eight plates into a single file, which makes it possible to save two pages on one side of a disk.

PUBLISHING PRO

Publishing Pro is an advanced version of News Station which lacks much of the versatility News Station offers. That sounds strange, but Publishing Pro can produce a full page of text and graphics without using plates. However, fonts and sizes cannot be changed within an article. Publishing Pro material must be entered using X,Y coordinates. Banners and headlines are entered first, and then areas for copy and graphics are blocked out for direct entry or disk files.

Publishing Pro provides an onscreen outline of where the headlines, articles and graphics will appear on the page. PaperClip seems to be the best word processor to use with Publishing Pro. Matching PaperClip column margins with Publishing Pro margins provides an exact count of lines needed for the column. Once completed, a Publishing Pro page may be saved to disk as a News Station page of eight plates, or it can be printed. Saving the page in plate form permits some final editing.

Preparing a page with Publishing Pro requires extensive planning to properly locate the headlines, text and graphics at the correct coordinates. I might use Publishing Pro to create a page with one headline and text across the full page -- or if I'm really pressed for time. News Station, though, is my first choice, especially with the enhancements of News Station Companion.

News Station advertises that "what you see on screen is what you get on paper." And in working on page layout, that's the most important feature for me.

NEWS STATION   ($29.95)
NEWS STATION COMPANION   ($29.95)
PUBLISHING PRO   ($39.95)
Reeve Software
29 W150 Old Farm Lane
Warrenville, IL   60555
(312) 393-2317

Steve Fishbein of Newport News, Virginia wrote to ANTIC about how he uses News Station. His letter was so detailed and informative that we assigned him to review the entire line of Reeve page design software.
ATARI NEWS AND RUMORS

Compiled for B.A.S.I.C. and Dateline

by Larry Richards

NEW ATARI HARDWARE NOW SHIPPING!

After what seemed like an eternity of pushed-back deadlines, last minute glitches, and excruciatingly slow boats from the far east, the long-awaited new Atari hardware is finally starting to appear on the dealers' shelves. Leading the "parade" is the SX212 1200 baud modem, featuring both a standard RS232 serial connector (for use with the ST or an 850/P:R:Conn. interface on the 8-bit Atari computers) and an 8-bit style SIO daisychain connector for use with the Atari 8-bit computers with no interface. There is only one SIO connector, however, so the SX212 will have to be the last item on the serial bus. Also, because Keith Ledbetter's new version of Express for the SX212 ("SX Express") was not finished in time to accompany the modem, Atari will be selling a seperate package for 8-bit users containing SX Express, a new SX-compatible R:handler that supports 1200 baud, and an SIO cable, at a later date. Initial disappointment over this by 8-bit users was tempered somewhat when it was discovered that the R:handler from the old R:Verter modem adaptor seems to work fine with the SX212 as long as the terminal program used with it does not contain its own R:handler (as is the case with 1030 Express and 850 Express). Programs like Amodem and HomeTerm work fine with the new modem and this handler. The SX212 retails for $99.95 and is said to be completely Hayes-compatible.

Since the SX212 must be the last item on the 8-bit SIO daisychain, it would seem to prevent the use of a printer at the same time without having to use an 850-style interface. However, the next new product from Atari will solve that problem and a whole lot more. The XEP-80 is a screen adaptor for the entire Atari 8-bit line that will produce a true 80-column display when used with the proper monitor (NOT on a TV set). It connects through the joystick ports and also contains a parallel printer port. All software making legal calls to the E: device for screen displays will work fine with the XEP-80. This includes programs such as Atari Basic, Basic XL/XE, and many others. Programs which set up their own custom screen displays, such as Atari Writer (and Plus), and PaperClip, will not work. However, Atari has announced that a new version of Atari Writer Plus which WILL work with the XEP-80 will be out shortly. Programs from other publishers will follow. The XEP-80 will even allow a form of hi-res monochrome graphics. Retail price is $79.95 ("A dollar a column.").

Also shipping at present is the "new" XE Super Game System. Retailing for $149.95, the XE SGS is Atari's newest entry into the revitalized video game market, doing battle with Nintendo and Sega (not to mention Atari's own 2600 and 7800). The XE SGS comes with 64K RAM, 24K ROM, a detachable keyboard (with a much nicer feel than the XE keyboard) and an SIO port for attaching disk drives and other peripherals. In other words, the XE SGS is a 65XE in video game clothing. All XL/XE compatible Atari 8-bit computer programs will run on the XE SGS. This includes a library of literally thousands of existing 8-bit Atari games, including hundreds of cartridges which don't require a disk drive. This gives the XE SGS a running

headstart over Nintendo and Sega, which only have a handful of titles each. Add that to the fact that a number of software publishers have already committed themselves to converting their disk-based software to cartridge form, including Electronic Arts and Epyx. Also included with the XE SGS is a light gun and three game carts, including a 256K cartridge version of Sub-Logic's Flight Simulator. The XE SGS seems to have stirred up renewed interest in the Atari 8-bit line from both software producers and retailers, as many dealers who had previously shunned Atari 8-bit hardware and software have signed on to carry the XE SGS and its software. That's good news for all Atari 8-bit users.

The final new hardware item now shipping from Atari is the "crown jewel" in the product line, the Mega. The first production units were finally shipped out recently and the blitter WAS included. Atari is now off on a "Mega rollout tour" as they seek to introduce the new machines to "professional" dealers throughout the country. Atari has also lined up a number of "professional" software publishers, such as WordPerfect, which will be debuting the ST version of WordPerfect on the tour, to accompany them. Yes, "professional" seems to be the operative word here, as the Mega will have "professional" dealers, "professional" software, and a "professional" price! The retail price for a Mega 2 is $1699 for a mono system and $1899 for color. The Mega 4 goes for $2399 mono and $2599 color. Add this to stringent Mega dealer qualifications and a STRICT no mail order policy, and it becomes evident that discounts on these prices will be very hard to come by, at least for now. This may account for the recent surge in sales of the 520ST and 1040ST, as people who were patiently waiting for the Megas to arrive got wind of the new prices and decided that "Power without the Price" was better than "Power WITH the Price". In any case, other "professional" features of the Mega include a attachable keyboard with much improved feel, an internal expansion socket, a 68000 bus extender socket (for external expansion), a battery-backed internal clock, new ROMs, an internal DMA port and power supply tap, and, of course, the long-awaited blitter chip.

OTHER ATARI HARDWARE STILL AMONG THE MISSING

All is not peaches and cream with Atari's promised hardware, however. A number of new products have still not made their appearance and Atari is not being very helpful in providing information about them. First and foremost is the Atari Laser Printer, which was supposed to be out BEFORE the Megas. Atari claims that the printer is working fine, but the INTERFACE that allows the printer to pass along the ST DMA bus is still having problems. They say it should be ready to ship "any day now". Of course, by the time it is ready a $1500 laser printer with no on-board RAM and limited to use with one brand of computer might not seem to be as much of a bargain as it seemed back in January.

Cold on the heels of the Laser Printer is the Atari PC. Still missing after months of on-again, off-again announcements from Atari, the Atari PC, like the Laser Printer, might not be much of a bargain by the time it

makes its appearance. After almost being killed by a doubting Sam Tramiel, the PC is apparently on again, but Atari does not seem to be very enthusiastic about it. A $700 PC clone with a monochrome monitor and no slots doesn't seem like such a great deal when a local electronics store here in Brooklyn is selling Blue Chip PC clones for $438 complete with mono monitor and six slots.

Finally, for 8-bit fans, is the XF551 disk drive. This double-sided double density replacement for the rapidly vanishing 1050 has finally completed development, according to Atari, but no release date has been announced for it. Atari had better get moving on it because there will soon be a horde of new XE Super Game System owners looking for the disk drives promised on their game packages.

NON-ATARI HARDWARE AND SOFTWARE

Magic Sac users now have hard disk support and compatibility with more than 90% of present Macintosh software thanks to version 4.52 of the Magic Sac boot software, now shipping from Data Pacific. Present Sac owners can get the new software, along with a completely re-written manual, by sending their original Atari boot disk, along with $20, to Data Pacific. Ver. 4.52 is also now shipping with all new Magic Sac cartridges. The long-awaited Translator ONE, which will allow STs using the Magic Sac to read original Mac disks, was supposed to begin shipping on October 1, however a shipment of mislabeled chips from "Raving Idiot Computer Chips" began trashing Translator mother boards being assembled and played havoc with Data Pacific's shipping schedule. David Small is picking up the pieces (and preparing his lawsuit), so expect delivery to be delayed a couple of weeks or so.

Electronic Arts has finally admitted that the ST market does exist and has just released a number of their programs, including Music Construction Set (not Deluxe), The Bard's Tale, and the long-promised Marble Madness, to try to make a few bucks off of it. I wonder if Trip included any "buy an Amiga" messages with the new programs? Another long-time Atari nay-sayer, Epyx, has also released some new ST programs, including Boulder Dash Construction Set.

ICD Inc., makers of the P:R:Connection, the MIO board, the US Doubler and SpartDOS, among others for the Atari 8-bit line, has just introduced their first ST product. The ICD SCSI Host Adaptor retails for $134.95 and allows use of standard SCSI controllers and hard disks with the ST. There are a number of other products on the market that do the same thing (from Berkeley Micro Systems and Supra) for about the same price, but the ICD is the only one that has a second DMA port to allow another DMA device to share the DMA bus. This means that an Atari, Supra, or Astra hard drive could be used at the same time as an ICD setup. Packaged with the Host Adaptor is a disk of ICD hard disk utilities that allow, among other more usual functions, a hard disk to be formatted to give about 10% more storage space than it would if it were formatted using conventional software (approximately 2 extra megs on

a 20 meg hard drive). ICD also announced that they will be selling a complete hard disk assembly using their host adaptor. It will be housed in a low-profile case that can also serve as a monitor stand, and it will contain either one or two hard drive mechanisms of 20, 30, 40 or more megs, depending on the configuration ordered, and it, like the host adaptor, will have a second DMA connector to continue the DMA bus. It will also have a SCSI port to allow up to 7 additional SCSI devices to be controlled by the host adaptor. This will allow flexible and relatively inexpensive expansion of hard disk storage (great for BBSs!). Final prices were not announced, although ICD said that they expect a single 20 meg system to be comparable in price to the Atari and Supra 20 meg units.

Speaking of hard disk utilities, Beckemeyer Development has released a package called the Beckemeyer Hard Disk Tool Kit which features an excellent hard disk backup program. Finally, Future Systems Inc., current makers of the Indus GT disk drives for the 8-bit computers, has just released the GTS-100, a double-sided 3.5" floppy drive for the ST.

Except for the usual avalanche of games and such for the ST, and the renewed interest in the 8-bit computers (a.k.a. the XE SGS), that's it for now.

LATE BREAKING FLASH!

Word from Neil Harris on GEnie is that the IBM hardware emulator box, which had been "on the back burner" while Atari fiddled with the PC, in now apparently back under full development at Atari. My guess is that Atari discovered that they could sell the Megas to the business market much more effectively if they featured MS-DOS compatibility (in fast hardware rather than slow software), much like the Mac SE/II and the Amiga 2000. Of course, no price or release date was mentioned.

The Sixth Annual ANTIC Shoppers Guide is this magazine's selection of over 100 best software and peripheral products currently available for 8-BIT Atari computers -- including the 130XE, 65XE, XE Game System, 800XL, 800, 600XL, 1200XL and 400. For users of Atari ST computers, a complete ST Buyers Guide is featured in the current special issue of START: The ST Quarterly.--ANTIC ED

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THE SIXTH ANNUAL ANTIC SHOPPERS GUIDE
By GREGG PEARLMAN,
Antic Assistant Editor
ATARI COMPUTERS
130XE
The Atari 130XE ($149.95) is a 128K-memory computer that's capable of running "serious" productivity software without any compromise — word processors with built-in spelling checkers, large spreadsheets and databases, etc. Yet it also has Atari's traditionally excellent graphics and ease of programming. The 130XE runs all the software

written for any previous 8-bit Atari model, and the keyboard action is nothing short of outstanding. Overall, the 130XE is the best value in 128K personal computers today.
65XE
The 65XE ($99.95) is essentially the classic Atari 800XL repackaged in sturdy gray plastic to match the rest of the new Atari computer line. It is a worthy successor to 800 and 800XL, continuing in the tradition of the best 64K personal computers ever brought to market. Available for considerably less than the low list price at mass merchandisers, the 65XE is a fine choice for first-time computer buyers with its solid base of good software and self-teaching books.
XE GAME SYSTEM
The new XE Game System ($149.95) is an imaginatively designed two-piece 65XE computer that comes with a detachable keyboard, a light gun, joystick and bundled cartridge software including Flight Simulator II. Atari is also marketing new cartridge versions of some 18 hit arcade and disk games at $20 apiece. The Game System runs all previously released 8-bit Atari cartridges -- or you could connect it to a disk drive and run any 8-bit Atari disk software.
Atari Corporation 1196 Borregas Avenue Sunnyvale, CA 94086 (408) 745-2000
(See the special START Buyers Guide issue for an in-depth look at the latest ST computers, software and peripherals.)

BUSINESS & PRODUCTIVITY
CALC MAGIC, CREATIVE PROCESS
CALC MAGIC ($24.95, XL/XE and disk, AP0177) is a complete spreadsheet package, featuring programmable macros that enable you to run automated sequences, quick testing of multiple "what-if" conditions, pop-up menu windows and math functions including mean, standard deviation and variance. Standard spreadsheet .DIF files are supported.
CREATIVE PROCESS ($19.95, 48K disk, AP0151) is a tremendous aid in report writing, for business or school. This outline processor features pop-up menus and can help you manage projects, make sense out of long meetings, or monitor works in progress. Creative Process supports the 130XE RAMdisk.
The Catalog, 544 Second Street, San Francisco, CA 94107. (800) 234-7001.
TURBOBASE
The MicroMod TURBOBASE Integrated Business Application takes full advantage of the 1Mb RAMdisk capability of ICD's Multi I/O Board and speedy SpartaDOS 3.2. This program does the job for business owners seeking a central software system to handle all their financial and administrative data. TurboBase tracks customer and vendor addresses and phone numbers; accounts receivable and payable; inventory and payroll. It contains a word processor and a flexible report generator.
$179.95, 48K disk.
MicroMiser Software, Inc.,
1635-A Holden Avenue,
Orlando, FL 32809.
(305) 857-6014.
SYNCALC, SYNFILE+, B/GRAPH

The SYNCALC spreadsheet and SYNFILE+ database ($49.95 each, 48K disk) are the most widely used integrated productivity applications for 8-bit Ataris. Each program is powerful, while pop-up menus and clear commands simplify operation. SynCalc is compatible with VisiCalc .DIF files.

B/GRAPH ($39.95, 48K disk) creates pie charts, 2-D and 3-D bar charts, line and area graphs. You can graph three factors with 100 data points each and convert instantly between graph types without re-entering data. B/Graph also reads and writes to SynCalc .DIF files -- enter data with SynCalc, then graph it with B/Graph.

Electronic Arts, 1820 Gateway Drive, San Mateo, CA 94404. (415) 571-7171.

BUSINESS MANAGER

BUSINESS MANAGER is for the small businessperson who needs a simple accounting system to track sales and inventory without getting lost in fancy features. Written in Atari BASIC, Business Manager also runs with BASIC XL from OSS. This program also takes advantage of the extra RAM in a 130XE.

$49.95, 48K Disk. Reeve Software, 29W150 Old Farm Lane, Warrenville, IL
60555. (312) 393-2317.

MILES PAYROLL SYSTEM

This advanced, comprehensive payroll accounting system maintains cumulative totals for up to 50 employees per disk and features complete reporting, check writing and W-2 reporting. Covers all standard payroll deductions, unemployment insurance and worker's compensation. Easy to update for yearly IRS changes, the Miles package allows weekly, biweekly, semimonthly or monthly pay periods.

$99.95, 32K disk, requires two disk drives. Miles Computing, 21018 Osborne
Street, Building 5, Canoga Park, CA 91304. (818) 994-6280.

COMMUNICATIONS, DISK DRIVES and EDUCATION)

COMMUNICATIONS

BACKTALK, EXPRESS!

With BACKTALK ($19.95, AP0154), your Atari can autodial other bulletin boards in the middle of the night and upload or download files in XMODEM or other standard formats. 130XE owners can save money on CompuServe with Backtalk's RAMdisk support. You have total modem compatibility and can create unlimited macro libraries.

EXPRESS! is the first choice of Atari online users, according to a ANTIC ONLINE 1986 survey. Keith Ledbetter's telecommunications programs are perhaps the most sophisticated, user-friendly software ever put into public domain. ($10, 48K disk. PD0081 for 1030/XM301, PD0082 for 850 and ICD interfaces.)

The Catalog, 544 Second Street, San Francisco, CA 94107. (800) 234-7001.

BBS EXPRESS!

BBS EXPRESS! runs on the Atari 1030 and XM301 modems, supporting both XMODEM and ASCII downloading. Sysops can customize their bulletin boards with powerful features. BBS Express! uses all currently available memory upgrades, and full remote sysop capabilities can be accessed from anywhere in the world.

$39.95, 48K disk. (Specify 850 or 835/1030/XM301 version.) Orion Micro Systems, 2919 Ennismore Court,

Richmond, VA 23224. (804) 794-9437.

DISK DRIVES

ATARI XF551

Atari's new XF551 is a double-sided, double-density 5 1/4-inch disk drive that runs almost three times as fast as the reliable 1050 model which it replaces. The XF551 features a new DOS from Optimized Systems Software, but it also operates all previous Atari software. Atari is hustling to try to get out this powerful new disk drive in time for the holidays.

$199.95. Atari Corp., 1196 Borregas Avenue, Sunnyvale, CA 94086. (408)745-2000.

ASTRA ONE

Astra's The One ($275) is a double-sided, double-density drive with direct-drive motors. The ASTRA 1001 ($225) disk drive is single-sided, double density, and the 2001 ($400) is a single-sided twin disk drive. The BIG D ($475) is the double-sided version of the 2001. All prices are approximate.

Astra Systems, 2500 South Fairview, Unit L, Santa Ana, CA 92704. (714) 549-2141.

SUPRADRIVE HARD DISK

With 20 million bytes of data available virtu ally instantly at the touch of a key, the SupraDrive will dramatically change the way you use your computer. The first hard disk made for Atari 8-bit computers has proven itself a dependable performer and operates many Atari bulletin boards today. The SupraDrive stores the equivalent of more than 200 floppy disks.

$699. Supra Corp., 1133 Commercial Way, Albany, OR 97321. (503) 967-9075.

BTL HARD DISK

This system combines standard hard disk units with BTL's own customized Atari interfaces. The BTL 2001 (for 800XL) or 2002 (for 130XE) connects to the computer's parallel bus slot. The BTL 2004 Hard Disk Adapter attaches to a standard SASI hard disk controller -- and supports one or two hard drives for a potential total of 128 megabytes of information storage. BTL packages complete hard disk systems up to 85Mb -- which can be easily configured and upgraded. Or you can supply your own hard disk and just purchase the adapter and connector.

$550 (10Mb with MYDOS). William Lurie & Associates, P.O. Box 7546, Van Nuys, CA 91409. (818) 780-1723.

EDUCATION

ATARI PLANETARIUM

ATARI PLANETARIUM shows you the stars tonight -- or any night between 9999 B.C. and A.D. 9999 -- from anywhere on Earth. View any celestial event at up to 64 times normal speed, forwards or backwards, from the appearance of Halley's comet over Australia on April 5, 1986 to the earliest recorded solar eclipse.

$24.95, XL/XE and 48K disk. Atari Corp., 1196 Borregas Avenue, Sunnyvale, CA 94086. (408) 745-2000.

RAINY DAY GAMES

Younger children will love the company of Ted Bear on Baudville's RAINY DAY GAMES. Ted always plays fair and he shows little ones how to have fun playing such favorites as Concentration, Old Maid and Go Fish.

$29.95, 48K disk. Baudville, 5380 52nd Street, Grand Rapids, MI 49508.
(616) 957-3036.

TALK & TEACH

The Dorsett Talk & Teach interactive tutorials encompass about 800 lessons ranging from pre-school to adult level. The lessons involve languages, mathematics, self-development, science, technology and vocational study. The lessons are all cassette-based -- two per tape -- and full of sound and graphics.

$9.95 per cassette; eight cassettes, $59.96. Dorsett Educational Systems,
Box 1226, Norman, OK 73070. (405) 288-2301.

TYPING TUTOR, WORD INVADER

Learn to use your keyboard quickly and properly, or just brush up on your typing skills. TYPING TUTOR evaluates your performance. Then play WORD INVADER to reinforce what you've learned. This two-in-one package comes on both disk and cassette.

$24.95, 48K disk; $21.95, 32K cassette. Academy software, P.O. Box 6277, Mill Valley, CA 94903. (415) 499-0850.

QUIZMASTER,
USA CONSTRUCTION SET

Quiz anybody on any subject, from riddles to nuclear physics, with the QUIZMASTER CONSTRUCTION SET. Create your own multiple-choice quizzes with an unlimited number of questions. As the screen displays a question, a counter rapidly counts down from 500, and you get the number of points still left when you press the key for the right answer. The USA CONSTRUCTION SET gives you a program disk, plus data disks containing questions for all of the states. The files can easily be edited and enlarged, so you'll have a constant variety of questions to be answered.

$9.95 each, 48K disk. EZuse Software, 2850 Enea Way, Antioch, CA 94509. (415) 754-6026.

LINKWORD LANGUAGES

The LINKWORD LANGUAGES series swiftly teaches you German, French, Italian and Spanish by using images that link foreign words to acoustically similar English words. Words are introduced one at a time, with the computer giving the English word, foreign equivalent, phonetic spelling and quick image to keep in mind for each. Linkword also teaches the beginning elements of grammar and topics such as dining out and going to the doctor. Vocabulary ranges from clothes and furniture to business and travel. The program comes with an audio cassette featuring a native speaker pronouncing the words you've just learned.

$24.95 each, 48K disk. Artworx Software Co., Inc., 1844 Penfield Road, Penfield, NY 14526. (800) 828-6573. (716) 385-6120 in New York.

MATH BLASTER!, WORD ATTACK!, SPELL IT!

MATH BLASTER!, for grades 1 through 6, contains more than 600 problems in ascending difficulty levels covering addition, subtraction, multiplication, division, fractions, decimals and percents. WORD ATTACK! gives 4th-graders through 12th-graders 675 new words in 27 lists and various tests. Additional data disks are available for $19.95. SPELL IT! has 50 word lists covering 1,000 commonly misspelled words in five difficulty levels.

$49.95 each, 48K disk. Davidson & Associates, 3135 Kashiwa Street,
Torrance, CA 90505. (800) 556-6141. (213) 534-4070 in California.

COMPUTE YOUR ROOTS

COMPUTE YOUR ROOTS takes genealogical information from you, stores it on disk and prints it neatly in standard diagram formats called pedigree charts and family group sheets. Trace your family tree back to the source, with your Atari.

$34.95, 48K. Requires BASIC. Wasatch Genealogical Software, 2899 West 7550 South, West Jordan, UT 84084. (801) 483-3357.

THUNDER MOUNTAIN SOFTWARE

Whether your musical skills are limited or extensive, SONGWRITER, featuring unique, easy to use "piano roll" graphics and onscreen commands, will have you playing your own tune in 15 minutes -- on your computer or home stereo.

MISSION IN OUR SOLAR SYSTEM puts you behind the controls of a spacecraft that can travel across the entire solar system. Use what you learn to land on planets and moons.

You're a Bizling whose spaceship has been damaged while visiting the Planet Simian. In RUN FOR THE MONEY, you must raise enough money to repair the ship by manufacturing and selling synannas to the Simians.

At the BATTY BUILDERS CONSTRUCTION YARD, you must construct the foundation walls for a new project, test the new conveyor system, catch the falling stones before they hit bottom, and build a wall with just the right pattern.

$9.95 each, 48K disks. Thunder Mountain, P.O. Box 1167, Northbrook, IL 60065-1167. (800) 221-9884.

ENHANCEMENTS
ATARI XEP80

The long-awaited plug-in 80-column card is here at last, according to Atari. It boasts a razor-sharp text display, plugs into a joystick port and carries its own built-in Centronics parallel printer interface. It works with color monitors but is at its best with monochrome. The XEP80 produces bit-mapped graphics, international and graphics characters, inverse video or blinking text, underlining, double-high or double-wide text. Just keep in mind that it may be a little while before your favorite software is made compatible with this smart little 80-column box.

$79.95. Atari Corp., 1196 Borregas Avenue, Sunnyvale, CA 94086. (408) 745-2000.

ICD ENHANCEMENTS

The P:R: CONNECTION ($89.95) makes it easy to connect Atari 8-bits to standard printers and modems. This inexpensive replacement for Atari's discontinued 850 Interface provides one Centronics parallel port and two serial ports. It uses the same cables ($14.95 from ICD) as the Atari 850. Drawing power from your computer, it doesn't require its own outlet. There's a built-in R-handler with complete documentation for the RS-232 driver source listing.

If you just want to hook up your printer, ICD's PRINTER CONNECTION ($59.95) contains a single parallel interface.

The most impressive add-on product for the 8-bit in years is ICD's MULTI I/O BOARD. The Multi I/O plugs into the parallel bus at the back of your Atari 800XL, 65XE or 130XE (the XE requires a $19.95 adapter) and gives your computer 1Mb ($349.95) or 256K memory ($199.95) which can be partitioned into multiple RAMdisks and a printer spooler plus a hard disk interface that can support eight

SASI and SCSI controllers at once, using standard 5 1/4-inch and/or 3 1/2-inch hard disk drives. You also get an 850-compatible parallel printer interface, a serial interface for modem or printer.

RAMBO XL ($39.95) is a 256K memory upgrade for the Atari 800XL and 1200XL. It sets up a 130XE-compatible 192K RAMdisk that runs current software such as the 130XE version of AtariWriter Plus on your XL. The 130XE version of PaperClip (Batteries Included) supports RAMBO's full 256K, loading the entire spelling checker into memory for rapid-fire operation.

ICD Inc., 1220 Rock Street, Rockford, IL 61101. (815) 968-2228 (Voice), (815) 968-2229 (BBS).

RAMCHARGER

Enhance your 8-bit computer's memory with RAMcharger RAMboards and get 256K to 1088K memory. Installation is simple and you can have an 800 with more memory than an ST. Just plug in the board and get 288K available with SynCalc and SynFile+, up to 8,000 sectors of RAMdisk. MYDOS software is included.

Atari 800: $149.95, 256K; $199.95, 512K; $299.95, 1Mb. 600/800/1200XL: $120, 256K. 130XE: $120, 320K; $180, 576K; $280, 1088K. Magna Systems, 147-05 Sandford Avenue, Suite 4E, Flushing, NY 11355. (718) 939-0908.

MICROFLYTE JOYSTICK

Instead of renting a real airplane for an hour, why not pick up the MicroFlyte ATC Joystick and take control of Sublogic's Flight Simulator II with a minimum of keystrokes? This self-centering analog joystick uses two potentiometers to recognize the direction and magnitude of a turn -- it helps you fine-tune your flying. However, it works only with Flight Simulator II or the programs you write yourself.

$59.95. MicroCube Corp., P.O. Box 488, Leesburg, VA 22075. (703) 777-7157.

COMPUCOVER

CompuCover protects your keyboard, disk drive, monitor and printer beneath fabric covers. XL/XE covers cost $8.95 each and 1050 disk drive covers cost $7.95. CompuCover boasts more than 3,000 covers of all shapes and sizes to help you keep dust away from your equipment.

CompuCover, P.O. Box 310, Dept. A, Mary Esther, FL 32569. (800) 874-6391. (800) 342-9008 in Florida.

GAMES

INFOCOM TEXT ADVENTURES

Dead Uncle Buddy Burbank, the Hollywood mogul, and Aunt Hildegarde have left you their entire estate — assuming you can find 10 treasures hidden throughout their lavish Malibu home. HOLLYWOOD HIJINX ($34.95) is loaded with memorabilia from Uncle Buddy's B-movies, which include A Corpse Line and Vampire Penguins of the North.

Now all three stories in the ZORK TRILOGY ($59.95) are together in one package — for almost 50% off the individual purchase price of this classic adventure. Zork takes you into the Great Underground Empire in search of its treasures.

Fans of Stephen King or H.P. Lovecraft will feel right at home with LURKING HORROR (34.95). Your worst nightmares seem like "Gilligan's Island" reruns compared to the goings-on at the George Underwood Edwards Institute of Technology (Gooey Tech).

Floyd's back in STATIONFALL ($34.95). Steve Meretzky's unforgettable Planetfall robot Floyd returns to help (?) you in your paperwork task force duties -- routine at first, but watch out.

For the first time in an Infocom game, you -- the main character -- are a woman. In PLUNDERED HEARTS ($34.95), you sail to the Caribbean to aid your ailing father. Standing in your way are stormy seas, steamy tropical nights and your unbridled passions as prisoner of a dashing pirate captain.

48K disks. Infocom, 125 CambridgePark Drive, Cambridge, MA 02140. (617) 492-6000.

STAR FLEET - ELECTRONIC ARTS ARCADE ACTION

As a member of the Alliance, you must protect its outer regions against the invading Krellan and Zaldron empires in STAR FLEET ($49.95). After graduating from the academy, you'll command one of 36 cruisers with a sophisticated array of weaponry at your fingertips.

AGE OF ADVENTURE ($14.95) is a two-game reissue package containing Ali Baba and the Forty Thieves plus The Return of Heracles. In LORDS OF CONQUEST ($14.95) the object is to be king of everything around. Lords has 20 prepared maps -- infinitely more, if you decide to create your own world with the map-making utility or have the computer generate one.

"HOW DO YOU DO? PLEASE TELL ME YOUR PROBLEM."

That's Eliza, the computer version of Dr. Ruth. Eliza, Pong, Adventure and Life constitute Software Country's GOLDEN OLDIES package ($14.95).

48K disks. Electronic Arts, 1820 Gateway Drive, San Mateo, CA 94404. (415) 571-7171.

SSI STRATEGY GAMES

In GETTYSBURG: THE TURNING POINT ($59.95), the tide of victory turns frequently throughout the game, just as it did more than a century ago in Pennsylvania. Whenever the battle seems to be under control, reinforcements pour in for the other side.

With the WARGAME CONSTRUCTION SET ($29.95), you can set up and play out conflicts ranging from individual hand-to-hand skirmishes to extended campaigns between great forces. You can build worlds that are real, modified or idealized. Then populate them with armies of "grunts" and tanks, starship troopers and space battle stations, dwarves and dragons or whatever you want.

SSI has packed all the major elements of surface engagements and command under fire into WARSHIP ($59.95). While oriented toward the war in the Pacific from 1941-45, an experienced gamer can use the game's utilities to construct a wide range of naval warfare scenarios. The package comes with four ready-to-play scenarios from World War II, three of them taken from historical battles at sea and one using hypothetical battle-groups.

In PHANTASIE ($39.95), you and as many as five characters search the Isle of Gelnor for nine rings that will rid the land of the Dark Lord. Over 80 types of monsters are fought and many puzzle challenges must be overcome in the quest through 10 dungeons.

In WIZARD'S CROWN ($39.95) you control a party of adventurers, each of whom may possess different attributes. You set off to find the long-coveted crown. Every time an encounter with the local monsters occurs, you can either resolve it quickly or go into a full-blown combat, in which case the action shifts to a tactical combat mode where each character has a variety of options

and a round can take 10-40 minutes.

In ETERNAL DAGGER ($39.95), SSI's follow-up to Wizard's Crown, your first task is to find magical weapons, because your little group has become "ill-equipped." Then you must build up your abilities and solve puzzles -- in your quest to seal the Demon Portal with the Eternal Dagger.

Command either the NATO or Warsaw Pact forces in a future war. In THEATRE EUROPE ($34.95), a game can last 30 days before a victor emerges. The NATO player must actually call a California phone number before launching a nuclear
strike.

48K disks. Strategic Simulations Inc., 1046 N. Rengstorff Avenue, Mountain View, CA 94043. (415) 964-1353.

COLOSSUS CHESS, BLUE TEAM BRIDGE

COLOSSUS CHESS ($15.95, AP0161) is for any chess-lover, whether you're a beginner or a master. The space bar toggles between two screens -- one showing the board and the other showing Colossus' "brain" considering thousands of moves. Onscreen elapsed-playing-time clocks add realism, and a game can be saved to disk to be picked up later.

Learn to play bridge. Learn to bid your cards. Learn to win. BLUE TEAM BRIDGE ($15.95, AP0178) is the answer if you want to improve your game. Beginners can learn a more advanced style of bidding that would be more difficult to pick up otherwise. Intermediate players can learn new bidding conventions to sharpen skills.

48K disks. The Catalog, 544 Second Street, San Francisco, CA 94107. (800) 234-7001.

INFILTRATOR, TRAILBLAZER, RAMBO

In INFILTRATOR ($29.95), you'll zoom through enemy airspace in your helicopter toward strategic targets and try to destroy the Mad Leader's military force. This animated graphic adventure combines realistic helicopter flight simulation with exciting military ground action.

The fast-paced TRAILBLAZER ($29.95) is sort of a combination of Ballblazer and Marble Madness, featuring crisp graphics and interesting playing challenges. You must maneuver an extraterrestrial soccer ball down the "hyperspatial color grid" and across the finish line before time runs out.

As do all titles in Mindscape's new Thunder Mountain line, RAMBO, an adventure graphics game costs $9.95 -- "the software industry's equivalent to the paperback book."

48K disks. Mindscape Inc., 3444 Dundee Road, Northbrook, IL 60062. (800) 221-9884.

MERCENARY, MERCENARY: THE SECOND CITY

In MERCENARY (29.95), you've crash-landed on the war-ravaged planet Targ, home of the organic Palyars and their robot adversaries, the Mechanoids. With you is Benson, a portable computer that tells you what's going on (in a limited way). In this first-person, 3-D game, your goal is to escape -- by any means.

MERCENARY: THE SECOND CITY (14.95) is a sequel that must be played in conjunction with Datasoft's original game disk. The Second City is on the other side of the Planet Targ, and once again you must escape.

48K disks. Intellicreations (Datasoft), 19808 Nordhoff Place, Chatsworth, CA 91311. (818) 886-5922.

LEADER BOARD, TRIPLE PACK

In LEADER BOARD ($39.95) is a realistic golf game with three progressively tougher ability levels. The joystick-controlled game doesn't present roughs, sand traps or trees. But its hazards are dangerous enough -- everywhere you look, there's water.

TRIPLE PACK ($19.95) is an inexpensive three-game reissue. Beach-Head features aerial reconnaissance and the navigation of your ships through a hidden passage to destroy a castle. In Beach-Head II, you can assume the role of either The Dictator or J.P. Stryker, youngest man ever to make Allied Chief Commander. In Raid over Moscow, you must stop a nuclear attack by launching your fighter pilots out of the U.S. Space Station. They must fly through enemy territory to attack the missile silos.

48K disks. Access Software, 2561 South 1560 West, Woods Cross, UT 84087. (800) 824-2549. In Utah, (801) 298-9077.

TOP GUNNER, F-15 STRIKE EAGLE

TOP GUNNER ($24.95) features three best-selling MicroProse aerial combat programs. Hellcat Ace gives you a first-person 3-D perspective of 14 scenarios that recreate air battles from 1940 to 1944. MIG Alley Ace, set during the Korean War, has five scenarios, but a plane can be flown by a two-player crew. In the above games, the screen is split into cockpit views for each opposing plane. In Air Rescue, you're a chopper pilot trying to rescue a team of trapped archeologists in Northern Africa. The view is third-person 2-D in a treacherous underground labyrinth.

F-15 STRIKE EAGLE ($34.95) launches you into aerial combat with a realistic, joystick computerization of seven sky battle-zones over the Middle East and Vietnam. You're armed with state-of-the-art weapons systems, computerized radar, eight supersonic guided missiles, 18 bombs and a 20mm cannon.

48K disks. MicroProse Software, 120 Lakefront Road, Hunt Valley, MD 21030. (301) 771-1151.

FLIGHT SIMULATOR II

Zoom your Piper Cherokee Archer around Chicago, New York, Seattle, Los Angeles or any of 80 realistic airports in this advanced flight simulation program. This sophisticated pilot training software provides believable flying practice after you learn the precise and detailed operating instructions.

Additional SCENERY DISKS include San Francisco and Tokyo-Osaka ($19.95 each) or a six-disk Western U.S. set for $99.95.

$49.95, 48K disk. Sublogic Corporation, 713 Edgebrook Drive, Champaign, IL 61820. (217) 359-8482.

MICRO LEAGUE BASEBALL

Pit the greatest teams against each other -- such as the 1927 Yankees and 1975 Reds -- in this baseball lover's delight. MICRO LEAGUE BASEBALL lets you hit-and-run, pitch out, attempt squeeze plays and double steals. Other Micro League packages let you create teams and compile statistics.

$39.95, 48K disk. Micro League Sports Association, 2201 Drummond Plaza, Newark, DE 19711. (302) 368-9990, (800)-PLAYBAL.

HARDBALL, ACE OF ACES

HARDBALL, an arcade-style baseball game, features enticing graphics and 3-D perspective from three views.

The joystick is used to choose lineups, select pitches and move fielders.

ACE OF ACES simulates the thrill and challenge of flying a British Royal Air Force mission over World War II Europe. Fly the remarkable RAF Mosquito in four different air battles, each requiring special weapons, flying and navigational skills.

$29.95 each, 64K disks. Accolade, 20813 Stevens Creek Blvd., Cupertino, CA 95014. (408) 446-5757

VIDEO VEGAS

VIDEO VEGAS gives you the chance to be a big winner without actual monetary risk. You'll get plenty of inexpensive practice at Blackjack, which includes a card-counting tutorial, the Lucky 7 slot machine, Keno and Draw Poker.

$29.95, 48K disk. Baudville, 5380 52nd Street, Grand Rapids, MI 49508. (616) 957-3036.

CHESSMASTER 2000

The ANTIC reviewer says that CHESSMASTER 2000 beat his copies of Colossus Chess 3.0 and Odesta Chess 7.0. If you are an avid chess buff, you will want the power of Chessmaster 2000 with its 20 levels of play and its library of almost 100 classic games. Outstanding graphics too.

$39.95, 48K disk. Software Toolworks, 9713 Santa Monica Blvd., Suite 214, Beverly Hills, CA 90210. (213) 278-8450. (Distributed by Electronic Arts.)

OGRE

OGRE takes place on a hypothetical battlefield in the 21st century where "Ogres" -- huge computer-controlled cybernetic tanks, battle human-run, high-tech weapon systems. Ogre players must maneuver across most of the board to destroy or preserve the command post. Ogre is incredibly easy to play: GEM-like tools including dialog boxes, drop-down menus and "double-clicking" are used via joystick.

$29.95, 48K disk. Origin Systems, Inc., 136 Harvey Road, Manchester, NH 03053. (603) 644-3360

GUILD OF THIEVES

THE GUILD OF THIEVES, long-awaited sequel to the ST hit, The Pawn, combines witty dialogue, challenging puzzles and outstanding graphics, as well as a humorous 40-page novella and other goodies.

$39.95, 48K disk. Firebird Licensees, Inc., 71 Franklin Turnpike, Waldwick, NJ 07463. (201) 920-7527.

LOTTO PROGRAM

The LOTTO PROGRAM performs an analysis of the past winning lotto numbers, attempting to show the probability of which numbers are likely to surface in the next few drawings. This menu-driven program produces easy-to-read charts from which you can try to pick hot and cold numbers, frequency, patterns, sums of digits, odd/even numbers, digit groups and more.

$24.95, 48K disk. Soft-Byte, P.O. Box 556, Forest Park, Dayton, OH 45405. (513) 278-8044.

GUDERIAN

In this challenging simulation of the German Blitz across western Russia in the summer of 1941, the German player must capture and hold several key locations, fighting not only the Soviet player, but also the clock, just as General Heinz Guderian did 46 years ago. The Russian commander, however, does not have an easy job: those early Soviet units required constant leadership or else they wouldn't perform at all.

$30, 48K disk. Avalon Hill, 4517 Harford Road, Baltimore, MD 21214. (800) 638-9292.

NEW ALADDIN

This disk magazine features news articles, graphics, reviews of films and computer products, games, short stories, humorous pieces and celebrity interviews by Chantal, the Hollywood correspondent for ABC-TV's "Good Morning America." Six times a year, you'll find a package containing three or more floppy disks in your mailbox -- which in turn contain volumes of material that will occupy you for hours.

$19.95 per disk, $79.95 per year, 48K disk. The New Aladdin, 12200 Park Central Drive, Suite 310, Dallas, TX 75251. (800) 345-6467. In Texas, call collect: (214) 788-4441.

WHITE BAG SOFTWARE

TK has released eight new discount titles at $14.95 each. MONEY SPIN, the 8-bit Atari's answer to WHEEL OF FORTUNE, lets you put your own puzzles onto data disks. In BALLOON POP, use joysticks or paddles to help clowns bounce higher and higher to pop hundreds of balloons. BARNSTORM brings back the challenges of the biplane pilot era, in 26 difficulty levels.

Play backgammon in GAMMON with colored dice, doubling cube and screen-wide playing field, or go on a space mission to destroy all enemy missile launchers in LASER FED. AIR HOCKEY is a fast-moving, computerized version of the table-top game.

LOTTERY TRACKS winning numbers and gives probabilities of future winners. BOWLING (Version 2, $20), features arcade action for up to four bowlers, with sound and graphics.

$14.95 each, 48K disks. TK Computer Products, P.O. Box 9617, Downers Grove, IL 60515. (312) 382-5244.

KEYPUNCH SOFTWARE

For under $30, you can buy four titles -- and a total of 14 games. Keypunch Software's DUNGEONS OF DESPAIR contain four text adventures. SPORTS SPECTACULAR includes football, bowling and golf. ARCADE BONANZA contains Ribbit, Rescue Sub and Bug Out. ACTION ADVENTURES disk contains four flashy graphics games.

$6.99 each, 48K disks. Keypunch Software, 1221 Pioneer Building, St. Paul, MN 55101. (612) 292-1490.

GRAPHICS - MODEMS

GRAPHICS

RAMBRANDT, ENVISION

RAMBRANDT paint software (AP0157) produces color images with KoalaPad or Atari Touch Tablet in five graphics modes and multiple text fonts. Though difficult to use and considerably user-hostile, RAMbrandt can load most pictures from Moviemaker, Micro Illustrator, Micro-Painter, Animation Station's Design Lab and Computereyes. The window mode lets you vertically or horizontally rotate, flip (for T-shirts), animate your picture, or scale it up or down in size. RAMbrandt has user-defined brushes, 130XE RAMdisk support and printer dumps for Epson, Star Micronics, C. Itoh, NEC and compatibles. Its Okimate 10 color printer dump usually produces color images.

ENVISION (AP0185) gives you multi-screen, eight-way scrolling pictures and letting you build animations of up to 128 frames at 10 speeds. Envision's 50-plus commands give you total control over the Atari's text modes. And the program supports GTIA modes 9 and 11. It can create

standalone pictures from images created by any popular paint program, or produce BASIC and Assembler source code.

$19.95 each, 48K disk. The Catalog, 544 Second Street, San Francisco, CA 94107. (800) 234-7001

COMPUTEREYES

Connect your Atari to any video camera or VCR and you'll get a digitized black-and-white image in less than six seconds. The image can then be modified with standard graphics software. The COMPUTEREYES package includes an interface module, software and an owner's manual. For $399.95, you also get a black-and-white video camera.

$129.95, 48K disk. Digital Vision, Inc., 66 Eastern Avenue, Dedham, MA 02026. (617) 329-5400.

DESKTOP PERFORMANCE STUDIO

With this long-awaited multimedia software, your 8-bit Atari becomes a live performance instrument and you instantly become a composer, artist, recording engineer and video animation director. Your movements of the graphics can control your music in real-time -- or your changes of graphic music patterns can control the animation images. The software scrolls your words in sychronization too. A true software breakthrough.

$49.95, 48K disk. Virtusonics Corp., 123 Duke Ellington Blvd., New York, NY 10025. (212) 316-6945.

ANIMATION STATION

Packaged with DESIGNLAB software (actually Baudville's Blazing Paddles), Suncom's Animation Station is a touch tablet that might be even easier to use than the discontinued KoalaPad. DesignLab loads and saves pictures in the popular 62-sector Micro-Painter format. The software's "shape tables" include buildings, animals, weapons and cars. These can be flipped or rotated and placed in your picture. You can print on graphics-capable Epson printers and compatibles plus Star/Gemini, Panasonic and Okimate printers.

$89.95, 48K disk. Suncom, 260 Holbrook Drive, Wheeling, IL 60090. (312) 459-8000.

MODEMS

ATARI XM301 & SX212

The XM301 ($59.95) builds advanced features into an inexpensive 300 baud modem that plugs directly into your 8-bit Atari. This worthy successor to the Atari 1030 has auto-dial and auto-answer and doesn't need a separate power supply. Included in the package are a slim 49-page manual and XE-Term software.

Atari announced the SX212 ($99.95) some time ago, but it has not yet come to market. The SX212 is a speedy 1200 baud, Hayes-compatible modem that plugs directly into Atari 8-bits or daisy-chains with your peripherals. Comes complete with built-in speaker, signal lights and software.

32K disks. Atari Corp., 1196 Borregas Avenue, Sunnyvale, CA 94086. (408) 745-2000.

AVATEX 1200 HC

The Avatex 1200 modem gives you inexpensive Hayes compatibility and reliable operation. It operates with a subset of the Hayes commands that gives you virtually all the important functions. The Avatex can often be found between $79 and $129 at dealers and is widely used in the Atari community. It requires an 850 or P:R: interface and can also be used with an ST.

$159. E+E Datacom, 1230 Oakmead Parkway #310, Sunnyvale, CA 94086. (408) 732-1181.

SUPRA 300/1200/2400

This fully Hayes-compatible modem is about half the size of the current Hayes 2400 baud modem. Featuring a speaker, two telephone ports and an LED display on the front, Supra's new multi-speed modem works with both the 850 interface and ICD's P:R: Connection. Supra's R-Verter cables convert the 8-bit Atari's SIO port to an RS-232 port.

$199.95, including cables and software; $179.95 for the modem only. Supra Corp., 1133 Commercial Way, Albany, OR 97321. (503) 967-9075.

MUSIC - ONLINE SERVICES

MUSIC

MIDITRACK

The hardware/software system from Hybrid Arts is a professional MIDI sequencer that can control a bank of synthesizers. MIDItrack II ($194, XL/XE) uses your Atari to emulate a 16-track digital recorder with synchronizer and MIDI remote control. There's 16-track overdubbing, auto-locate and optimizing.

MIDItrack III (130XE only) is $187. Hybrid Arts, 11928 W. Olympic Blvd., Los Angeles, CA 90064. (213) 826-3777.

GUITAR WIZARD

Master guitar chords and scales with this innovative program. GUITAR WIZARD is more than just a computerized chord-fingering book. It includes scale guides, alternate string tunings and guidance for improvisational playing. There are 32 chord types, along with more than 12 roots and nine positions, totaling 3,456 variations.

$24.95, 48K disk. Baudville, 5380 52nd Street, Grand Rapids, MI 49508. (616) 957-3036.

COLLEEN MUSIC CREATOR

COLLEEN MUSIC CREATOR features Colleen Fun-Play, which provides realtime rhythm accompaniment in boogie, country, disco and waltz styles. The Drum Machine lets you create infinite drum patterns, and the Creator pushes your Atari sound chip to the limit, compressing music into an editable, compact machine language file. A sound effects library is provided too. All tunes created with the Creator can be combined into multiple music files.

$29.95, 48K disk. Colleen Limited, Hallwood 1, 7535 S.W. Hall Blvd., Beaverton, OR 97005. (503) 641-6538.

ONLINE SERVICES

Hourly rates and membership fees for commercial online services are subject to change. Contact individual companies for latest information. You'll need a modem to hook up.

COMPUSERVE

CompuServe is the leading online information service, and with good reason. You can get stock quotes, news and weather reports, make airline reservations, buy merchandise, play games, enter special interest groups (SIGs) on dozens of topics. CompuServe is where you'll find the ANTIC ONLINE edition and three bustling Atari SIGs (8-bit, 16-bit and Atari Developers) with hundreds of 8-bit and ST programs to download. Upload time is free. Hourly rates ANYTIME are $6 for 300 baud, $12.50 for 1200 and 2400 baud. $39.95 sign-up fee.

500 Arlington Center, Box 20212, Columbus, OH 43220. (800) 848-8199. In Ohio, (614) 457-8600.

GENIE

GEnie, the General Electric Information Service, is the newest and least expensive online service, costing $5 an hour between 6 p.m. and 8 a.m. on weekdays, and all day on evenings and weekends, even for 1200 baud modems ($10 for 2400 baud). Prime-time rates are more business-oriented, $35 per hour for 300/1200 baud and $45 for 2400 baud. Upload time is free. The SIG-like Atari RoundTable software library has 11 categories and is growing fast.

GEnie, 401 N. Washington Street, Rockville, MD 20850. (800) 638-9636.

PC PURSUIT

PC Pursuit is a low-cost log-on service that can be used from nearly 17,000 local telephone exchanges in 25 major cities. It operates at 300 and 1200 baud, 24 hours a day. For only $25 per month, you get unlimited long-distance online time during evenings and weekends. All PC Pursuit service charges are billed directly to your Visa, Mastercard or American Express card, making it equally easy to use PC Pursuit at home, at work or on the road. The service also operates its own BBS for users to exchange operating tips. Telenet's Control Center provides 24-hour staffing to ensure reliable data transmission. Weekday rates between 7 a.m. and 6 p.m. are $10 or $14.50 hourly, depending upon your access location. There is also a one-time $25 registration fee.

PC Pursuit, Telenet Building, 12490 Sunrise Valley Drive, Reston, VA 22096. (800) TELENET. In Virginia, (703) 689-5700. BBS: (703) 689-3561.

PRINTERS - PROGRAMMING TOOLS
PRINTERS
ATARI XMM801 & SMM804

Atari's XMM801 and SMM804 dot-matrix printers offer many (but not all) of the features currently considered standard in the marketplace -- and at unusually low street prices. In most respects, the printers are identical. The XMM801 has a serial interface that plugs directly into 8-bit Atari computers or their disk drives. The SMM804, with its parallel interface, is intended for direct hookup to STs, but it can be connected to 8-bit models via the Atari 850 Interface or ICD's P:R: Connection. In fact, if you already own an interface and are considering buying an ST, the SMM804 will give you more speed and features than the XMM801. The XMM801 is compatible with Epson's medium-resolution graphics mode, 960 dots per line. The SMM804 supports as many as 1,280 dots per line.

$199.95 each. Atari Corp., 1196 Borregas Avenue, Sunnyvale, CA 94086. (408) 745-2000.

STAR NL-10

The NL-10 is a direct descendant of the discontinued Gemini 10X and Star SG-10, and the current NX-10 ($349). The NL-10 is compatible with the Epson FX-80. An outstanding near letter-quality font and an expanded set of control buttons on the top panel are major attractions of the fast, sturdy, easy-operating NL-10. This printer provides every standard feature at a most affordable price. The NL-10 requires a Star $60 interface cartridge. $319 plus $60 parallel interface.

Star Micronics, Inc., 200 Park Avenue, New York, NY 10166. (714) 768-7203.

OKIMATE 10

Color printing is what you get from the small, quiet and inexpensive Okimate 10 thermal printer. The Oki prints 8 inch x 5 1/4 inch color images on single-sheet or tractor-feed paper. Its color printouts can be bright and crisp, if you use coated paper plus the RAMbrandt graphics software described in the Shoppers Guide software section.

$238 including Atari interface. Okidata Corp., 532 Fellowship Road, Mt. Laurel, NJ 08054. (800) OKIDATA.

PRINTING
PRINT SHOP

Design your own greeting cards, banners, letterheads, logos and more with Broderbund's versatile PRINT SHOP ($44.95, 48K disk). You don't need computer graphics experience. Print Shop will guide you through the process. Design elements include eight typestyles, nine border designs, a graphics editor that lets you create original pictures, and the ability to superimpose text over any design.

Volumes I, II and III of the PRINT SHOP LIBRARY ($24.95 each, 48K disk) are collections of graphics, ranging from Presidents to plumber's helpers, from chess pieces to choppers. These illustrations feed right into Print Shop.

The PRINT SHOP COMPANION ($34.95, 64K disk) adds extra features to the basic program, such as calendars, enhanced borders, fonts, fill-in patterns and more powerful graphics editing.

Broderbund Software, 17 Paul Drive, San Rafael, CA 94903. (415) 492-3200.

GRAPHIC SHOP

Graphic Shop lets you use images from most standard Atari graphics software with Print Shop. Create designs and pictures with your KoalaPad or Atari Touch Tablet and compress all or part of your work into Print Shop format. The Print Preview feature lets you choose pattern fills and solid black or white to replace colors in the printout. Graphic Shop requires Broderbund's Print Shop.

$19.95, 48K disk. The Catalog, AP0156.

NO FRILLS GRAPHICS

No Frills disks ($19.95 each) are filled with a wide variety of icons, fonts and borders for 64K Ataris running Print Shop Companion. The company also markets two disks of Judaic images and Hebrew letters, plus a $22.95 Christian symbols disk. A new addition to the line is four disks from the Jersey Atari Computer Society ($12.95 each).

No Frills Software, 800 East 23 Street, Kearney, NB 68847. (308) 234-2975, (308) 234-6250.

LISTER PLUS & PICTURE PLUS

Stretch your dot-matrix printer to its limits. LISTER PLUS dumps listed files (including programs) to the printer using any custom character set you choose. On the flip side of the disk, PICTURE PLUS manipulates most types of Atari picture files so you can format them for use with a BASIC program or dump them to the printer in any of four sizes.

$19.95, 48K disk and Atari BASIC, AP0179. The Catalog, 544 Second Street, San Francisco, CA 94107. (800) 234-7001.

NEWS STATION, NEWS STATION COMPANION, PUBLISHING PRO

The versatile, user-friendly NEWS STATION newsletter publishing program ($29.95, 48K disk) lets you use any Atari nine-sector font in 64 sizes, and is compatible with Print Shop icons (in three sizes) and pictures in

Micro-Painter and Micro Illustrator formats, as well as drawings done directly in the program.

The NEWS STATION COMPANION ($29.95, 48K disk) adds new features to the base software. It creates headlines that go across the top of the entire page, compresses eight 52-sector News Station plate files into a single page file that requires much less disk space. Long, multi-page text files can be accepted now, as well as unconverted KoalaPad graphics.

PUBLISHING PRO ($39.95, 48K disk), an "advanced version" of News Station, can produce a full page of text and graphics without using plates, but it sacrifices some versatility and ease of use.

Reeve Software, 29W150 Old Farm Lane, Warrenville, IL 60555. (312) 393-2317.

TYPESETTER, PAGE DESIGNER, RUBBER STAMP

TYPESETTER ($34.95), PAGE DESIGNER ($29.95) and RUBBER STAMP (29.95) are three related 48K disk programs. They combine form into a flexible and powerful package which lets you mix graphics and text elements that you have created from scratch. The software goes beyond Print Shop in control of the printed page. Due to the array of powerful choices, this software can be somewhat challenging to learn.

XLEnt Software, P.O. Box 5228, Springfield, VA 22150. (703) 644-8881.

QUIK PIX

The two versions of QUIK PIX merge Print Shop Library pictures into word processor pages from either PaperClip or from AtariWriter and AtariWriter Plus. (Actually you can merge ANY picture, if you convert it to Print Shop format first.) Pictures can be saved as "pix," letterhead, or as labels using the Mail Merge features of these word processors.

$29.95 each, 48K disk. White Lion Software, P.O. Box 357, Ridge, NY 11961. (516) 472-6657

AWARDWARE

Design and print awards, licenses and certificates of recognition with AWARDWARE ($14.95, 48K disk). The software has 99 award templates sized 8 X 10 inches and 5 X 7 inches. You can print mock "checks," admission tickets, ribbons, plaques, trophies and "keys to the city." AwardWare also offers 20 borders, five fonts, 20 graphics and five seals.

With the other Hi-Tech products, HEARTWARE ($9.95), LOVE NOTE MAKER ($14.95), CARDWARE ($9.95), PARTYWARE ($14.95) and WARE WITH ALL ($14.95), you can express yourself almost without limit.

Hi Tech Expressions, 1700 Northwest 65th Avenue, Suite 9, Plantation, FL 33313. (800) 848-9273. In Florida, (305) 584-6386.

YEMACYB

Print in color on standard dot-matrix printers such as the Epson MX/80, Star 10X/SG-10 and C.Itoh Prowriter and their compatibles. YEMACYB supports display list interrupts as well as Graphics 7 and Graphics 7 1/2 (ANTIC mode E) screens in uncompressed 62-sector format. It maintains a palette that defines the blend for each of the Atari's 128 colors. A separate program lets you change the palette if the printout doesn't match your screen exactly. YEMACYB requires four colored ribbons: yellow, cyan, magenta and black.

$21.95, 48K disk. ($18 to $26 for ribbons.)

Electronical Software, P.O. Box 8035, Rochester, MI 48063.

FORMS GENERATOR

Create customized purchase order forms, statements, invoices, proposals, job work orders, gift certificates. FORMS GENERATOR's scrolling spreadsheet-style WYSIWYG screen makes it easy design and print almost any form you need. Not only does Forms Generator create forms -- it makes all calculations automatically. You can even save forms to disk and keep records with this program.

$23.95, 48K disk. Twenty-Fifth Century, Software Division, Dept. AT 1, 234 Fifth Avenue, New York, NY 10001. (800) 346-6000.

PROGRAMMING LANGUAGES & TOOLS

BASIC XE, ACTION!

BASIC XE ($79, cartridge plus 48K disk) from OSS runs programs at least twice as fast as Atari BASIC. BASIC XE has powerful new statements, automated editing features and extra utilities. This language harnesses the full 128K memory of the 130XE computer.

The fast, powerful ACTION! programming language ($79, 16K cartridge) blends elements of Pascal and C, but is much easier to program on the 8-bit Atari. The ACTION! screen editor makes programming a joy and was the basis of Batteries Included's PaperClip word processor. Particularly outstanding for speedy graphics and game programs.

Optimized Systems Software, 1221B Kentwood Avenue, San Jose, CA, 95129. (408) 446-3099.

ADVAN BASIC

Never has a BASIC given the programmer such effortless command of the special sound and graphics capabilities of the Atari. ADVAN BASIC is a speedy compiled BASIC with powerful new commands and built-in Player/Missile graphics.

$39.95, 48K disk. Advan Language Designs, P.O. Box 159, Baldwin, KS 66006. (913) 594-3420.

HARDBACK

HARDBACK makes fast, simple and reliable backups of high-capacity drives and RAMdisks. Minimal typing and disk-swapping is required. HardBack supports any Atari-compatible disk drive and is not only for hard disk users. It's excellent for backing up large RAMdisks and quadruple-density floppy drives.

$39.95, 48K disk, requires SpartaDOS 3.2. Orion Micro Systems, 2211 Planters Row Drive, Midlothian, VA 23113. (804) 794-9437.

BASIC VIEW

Lighten your debugging load with BASIC VIEW, a machine language programming utility that traces BASIC programs as they run. As each line of your code is executed, the BASIC tracer highlights it in a screen window, enabling you to find bugs right away.

$19.95, 48K disk, AP0192. The Catalog, 544 Second Street, San Francisco, CA 94107. (800) 234-7001.

TURBO BASIC XL

When interpreted, TURBO BASIC runs three to four times faster than standard Atari BASIC and has advanced program control and I/O commands. Using the Turbo BASIC compiler makes programs run 15-20 times faster than Atari BASIC -- and it will compile Atari BASIC programs too. No runtime package is necessary, because Turbo BASIC can be given away free along with your program.

This free public domain language can be obtained from

your local users group or downloaded from a bulletin board. On CompuServe, Turbo BASIC is available with a large library of utilities and help files. Just go to CompuServe's SIG#Atari 8-bit Data Library 3 and type BRO/KEY TURBO.

64K disk. Public domain software.

SPEECH/SOUND - WORD PROCESSING
SPEECH & SOUND
COVOX VOICE MASTER

The Covox Voice Master digitally records and manipulates your own voice, storing the electronic signals in the memory of your Atari. Voice Master consists of a small white box, a telephone operator-type headset, connecting cables, a program disk and documentation.

Voice Master repeats what you said -- in your own voice. It shows off its voice-recognition capabilities in a talking blackjack game. Say how much you want to bet, whether you'll hit or stand, and Voice Master will respond with the correct deal.

$89.95, 48K disk. Covox Inc., 675-D Conger Street, Eugene, OR 97402. (503) 342-1271.

PARROT

Alpha's Parrot sound digitizer can play back almost anything, from birds singing to sirens blaring. The Sound Sampler hardware plugs into joystick port 2 and feeds the sound into the Atari. Parrot's mini-plug jack accepts sounds from microphones, tape recorders, radios, televisions, VCRs or compact disk players. Play mode turns your computer's keyboard into a synthsizer. Load sounds you've created, select the type of sound you want -- horns, telephones, etc., -- and the top three keyboard rows give you three octaves of notes for each sound.

$39.95, 48K disk. Alpha Systems, 4435 Maplepark Road, Stow, OH 44224. (216) 374-7469.

WORD PROCESSING

PAPERCLIP

We write and edit every word at ANTIC with PAPERCLIP before transmitting the copy to our typesetter via modem. PaperClip is a professional-strength word processor that's easy to learn. Its features include a split screen with cut-and-paste between both windows, one-key macros, readable characters with true descenders, double-column printing, configuration files for many different printers and fine documentation. The 130XE version contains the SpellPack spelling checker.

$59.95, 48K disk. Batteries Included, distributed by Electronic Arts, 1820 Gateway Drive, San Mateo, CA 94404. (415) 571-7171.

FIRST XLENT WORD PROCESSOR

Put pictures into the text, use the joystick for cursor movement, edit two documents at once with the FIRST XLEnt WORD PROCESSOR. This program boasts near-instantaneous search-and-replace and adjustable cursor or joystick speeds on XL/XE computers. There's also no problem loading First XLEnt files to other word processors. It comes with Atari DOS 2.5, but you can substitute your own DOS -- meaning that you can use a high-speed DOS, custom RAMdisk, etc. First XLEnt has a visible, editable cut-and-paste buffer and true file insert -- you can insert a disk file anywhere in your text without losing the end of your document. And you can save any portion of the document in memory to disk.

$29.95, 48K disk. XLEnt Software, P.O. Box 5228, Springfield, VA 22150. (703) 644-8881.

ATARIWRITER PLUS

A disk-based upgrade of the popular Atariwriter cartridge, ATARIWRITER PLUS includes a spelling checker and mail merge. It takes advantage of the 130XE's full 128K memory. AtariWriter Plus lets you send your file directly to devices other than P: -- for instance, you might want to send it to the modem port or to another Atari computer.

$49.95, 48K disk. Atari Corp., 1196 Borregas Avenue, Sunnyvale, CA 94086. (408) 745-2000.